

Case 2998

Australopithecus afarensis Johanson, 1978 (Mammalia, Primates): proposed conservation of the specific name

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Abstract. The purpose of this application is to conserve the specific name of *Australopithecus afarensis* Johanson, 1978 for an East African fossil primate (tribe HOMININI). The name is a junior subjective synonym of the specific name of *Meganthropus africanus* Weinert, 1950 and has been used in place of the latter, which is a junior secondary homonym of the South African hominin name *Australopithecus africanus* Dart, 1925. It is proposed that the usage of *afarensis* be maintained whatever the generic association.

Keywords. Nomenclature; taxonomy; Primates; hominids; Pliocene; *Australopithecus afarensis*; East Africa.

1. Dart (1925, p. 198, figs. 1–6) described and illustrated a fossil (presumed Pliocene) hominin skull from Taung, South Africa, and gave it the new generic and specific names *Australopithecus africanus*.

2. In 1939 excavations at the Pliocene site of Garusi in Tanganyika Territory (now Tanzania) yielded a hominin maxillary fragment with two premolar teeth. The specimen was referred to as '*Praeanthropus*' by Hennig (1948, p. 214) but, since Hennig's publication did not include the fixation of a type species, the name is not available from this work (Article 13b of the Code; see para. 3 below). The first available name for the specimen is *Meganthropus africanus* Weinert, 1950 (p. 139, pl. 14, fig. 2). Because of its large size, Weinert compared the fossil with Recent humans and with fossil remains from Java and did not mention *Australopithecus*. He described it as a new species of the Javanese Pleistocene genus *Meganthropus* Weidenreich, 1944.

3. Remane (1951, 1954) further described the Garusi maxilla and compared it with other nominal genera, including *Plesianthropus* Broom, 1938 and *Paranthropus* Broom, 1938 from South Africa, but maintained Weinert's name *Meganthropus africanus*. A further study of the specimen was made by Robinson (1954), who concluded that it was conspecific with *Australopithecus africanus* Dart, 1925. Von Koenigswald (1954, p. 85) recorded: 'We agree with Robinson that *Meganthropus africanus*, collected by Kohl-Larsen in East Africa, has nothing to do with our Javanese form and rather belongs to the Australopithecinae'. He also noted: 'The view that the specimen in question might belong to an Australopithecinae has already been expressed earlier: first by W. Abel (vide: L. Kohl-Larsen, 1943), later by Teilhard de Chardin (1952, p. 377, footnote) and the present author (von Koenigswald, 1953, p. 132)'. Senyürek (1955, p. 33), in contrast to Robinson (1954),

not only recognised the specimen as a distinct australopithecine but transferred it to a new genus as *Praeanthropus africanus* (Weinert, 1950).

4. Further hominin material was discovered during the 1970s at the Garusi site, by now known as Laetoli (the original Garusi maxilla being numbered L.H.1, 'L.H.' meaning Laetoli Hominid). On the basis of this new material, together with specimens from the Hadar site in Ethiopia, Johanson, White & Coppens (1978 [after August], pp. 2-9, pls. 2-4) diagnosed and illustrated a new species, *Australopithecus afarensis*. The name itself was made available a few months earlier in a report of a scientific meeting, and the correct citation (Article 50b of the Code) is therefore *Australopithecus afarensis* Johanson, 1978 (June; p. 571). The type specimen of *Australopithecus afarensis* (stated by Johanson, White & Coppens, 1978 to be the holotype but in fact the lectotype; Article 74b) is a nearly complete mandible numbered L.H.4, collected from Laetoli in 1974 and housed in the National Museums of Kenya, Nairobi. The authors noted: 'Laetoli Hominid-4 was selected as the holotype [recte lectotype] both because of its distinctive, diagnostic morphology and because it has previously been fully described and illustrated (White, 1977)'. Johanson et al. (1978) included the Garusi maxilla L.H.1 as a 'paratype' (recte paralectotype) of the new nominal species *A. afarensis*.

5. Subsequent commentators have been virtually unanimous in concluding that the Laetoli and Hadar hominins, whether they form a single species or not, are not conspecific with *Australopithecus africanus* Dart, 1925 (see, for example, Wood & Chamberlain, 1986, and Groves, 1989). Day, Leakey & Olson (1980, p. 1102) noted: 'Inclusion [by Johanson et al., 1978] of the Garusi 1 specimen in the type-series of *A. afarensis* and their listing of *M[eganthropus] africanus* as a synonym of this name has the effect of making *A. afarensis* a replacement name (junior subjective synonym) for Weinert's *M. africanus*. Johanson was correct in giving a new name to Weinert's species because his inclusion of this species in the genus *Australopithecus* Dart, 1925 meant that the nominal species *Australopithecus africanus* (Weinert, 1950) had to be rejected since it was now a junior secondary homonym of *Australopithecus africanus* Dart, 1925'. They also noted: 'The name *afarensis* is valid as a substitute for Weinert's prior name only (i) when Weinert's holotype and the L.H.4 lectotype are included in the same species and (ii) when this species is classified in a genus in which Weinert's name is a junior homonym' (Article 59d). The consequences of the latter were spelt out by Olson (1981, p. 118), who transferred the Laetoli and part of the Hadar material to the genus *Paranthropus* and noted: 'The removal of this species from the genus *Australopithecus* necessitates the restoration of Weinert's (1950) original nomen, *Meganthropus africanus*, as the valid species-group name for this taxon and it means that its junior subjective synonym, *Australopithecus afarensis*, must be rejected (Day et al. 1980). In this present study *Paranthropus africanus* (Weinert, 1950) is adopted as the valid name of this taxon'.

6. The specific name *afarensis* Johanson, 1978 is now well entrenched in the literature and has appeared in representative publications such as Howell (1978), Wolpoff (1980), Rak (1983), Leakey (1987), Fleagle (1988), Klein (1989), Allan (1992) and Feder & Park (1993), and several papers in each of the following compilations: Delson (Ed., 1985), Giacobini (Ed., 1989) and Jones & Martin & Pilbeam (Eds., 1992). The senior subjective synonym *africanus* Weinert, 1950 has been little used and its resurrection would cause considerable confusion with Dart's

(1925) name *Australopithecus africanus*, which is much in current use. In some cases (see Groves, 1989) it is only the necessity of losing the well-known name *afarensis* in favour of *africanus* Weinert that has prevented the taxonomic removal of *afarensis* from the genus *Australopithecus*. This unfortunate circumstance is certainly against the spirit of the Code, which refers in its Introduction (p. xiii) to 'the freedom of scientists to classify animals according to taxonomic judgements'. To allow the uninterrupted use of the specific name *afarensis* Johanson, 1978 I propose that the name be conserved by the suppression of *africanus* Weinert, 1950.

7. To my knowledge *Praeanthropus* Senyürek, 1955, of which *Meganthropus africanus* Weinert, 1950 is the nominal type species (see para. 3 above), has not been used as valid since its publication. It is available if *afarensis* is removed from *Australopithecus* and placed in another genus, and it is likely that the name *Praeanthropus* will be needed in the future.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the specific name *africanus* Weinert, 1950, as published in the binomen *Meganthropus africanus*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Generic Names In Zoology the name *Praeanthropus* Senyürek, 1955 (gender: masculine), type species by monotypy *Meganthropus africanus* Weinert, 1950 (a suppressed senior subjective synonym of *Australopithecus afarensis* Johanson, 1978);
- (3) to place on the Official List of Specific Names in Zoology the name *afarensis* Johanson, 1978, as published in the binomen *Australopithecus afarensis* (first available subjective synonym of *Meganthropus africanus* Weinert, 1950, the type species of *Praeanthropus* Senyürek, 1955);
- (4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *africanus* Weinert, 1950, as suppressed in (1) above.

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